

METHOD FOR ISOLATING AND
CHARACTERIZING SHORT-LIVED PROTEINS
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ABSTRACT

A method is provided for characterizing short-lived proteins, the method
5 comprising: taking a library of cells, each cell in the library expressing a fusion
protein comprising a reporter protein and a protein encoded by a sequence from a
cDNA library derived from a sample of cells, the sequence from the cDNA library
varying within the cell library; modifying a rate of protein expression or degradation
by cells in the library; and selecting a population of cells from the library of cells
10 based on the population of cells having different reporter signal intensities than other
cells in the library, the difference being indicative of the population of cells
expressing shorter lived fusion proteins than the fusion proteins expressed by the
other cells in the library; and determining protein sequences of the fusion proteins of
the selected population of cells.